Complete Summary

TITLE

Osteoporosis: percentage of patients aged 50 years and older with a fracture of the hip, spine or distal radius who had a central DXA measurement ordered or performed or pharmacologic therapy prescribed.

SOURCE(S)

American Academy of Family Physicians, American Academy of Orthopaedic Surgeons, American Association of Clinical Endocrinologists, American College of Rheumatology, Endocrine Society, Physician Consortium for Performance Improvement®, National Committee for Quality Assurance. Osteoporosis physician performance measurement set. Chicago (IL): American Medical Association, National Committee for Quality Assurance; 2006 Oct. 15 p. [7 references]

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the Measure Validity page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of patients aged 50 years and older with a fracture of the hip, spine or distal radius who had a central dual-energy X-ray absorptiometry (DXA) measurement ordered or performed or pharmacologic therapy prescribed.

RATIONALE

Patients with a history of fracture should have a baseline bone mass measurement and/or receive treatment for osteoporosis. While the majority of osteoporotic

fractures occur in patients with low bone mass, confirmed by bone mass measurement, that is not always the case. Therefore, exclusion of osteoporosis by bone mass testing does not preclude treatment of osteoporosis in a patient with a history of fracture. There is a high degree of variability and consensus by experts of what constitutes a fragility fracture and predictor of an underlying problem of osteoporosis. The work group determined that only those fractures, which have the strongest consensus and evidence that they are predictive of osteoporosis should be included in the measure at this time. We anticipate that the list of fractures will expand as further evidence is published supporting the inclusion of other fractures.*

*The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and support the rationale:

The most important risk factors for osteoporosis-related fractures are a prior low-trauma fracture as an adult and a low bone mass density (BMD) in patients with or without fractures. (American Association of Clinical Endocrinologists [AACE])

BMD measurement should be performed in all women 40 years old or older who have sustained a fracture. (AACE)

The single most powerful predictor of a future osteoporotic fracture is the presence of previous such fractures. (American Gastroenterological Association [AGA])

The decision to measure bone density should follow an individualized approach. It should be considered when it will help the patient decide whether to institute treatment to prevent osteoporotic fracture. It should also be considered in patients receiving glucocorticoid therapy for 2 months or more and patients with other conditions that place them at high risk for osteoporotic fracture. (National Institutes of Health [NIH])

The most commonly used measurement to diagnose osteoporosis and predict fracture risk is based on assessment of BMD by dual-energy X-ray absorptiometry (DXA). (NIH)

Measurements of BMD made at the hip predict hip fracture better than measurements made at other sites while BMD measurement at the spine predicts spine fracture better than measures at other sites. (NIH)

Pharmacologic therapy should be initiated to reduce fracture risk in women with:

- BMD T-scores below -2.0 by central DXA with no risk factors
- BMD T-scores below -1.5 by central DXA with one or more risk factors
- A prior vertebral or hip fracture (National Osteoporosis Foundation [NOF])

PRIMARY CLINICAL COMPONENT

Osteoporosis; fracture (hip, spine, distal radius); dual-energy x-ray absorptiometry (DXA) measurement; pharmacologic therapy (bisphosphonates [alendronate, ibandronate, and risedronate], calcitonin, estrogens [estrogens and/or hormone therapy], parathyroid hormone [PTH (1-34), teriparatide], and selective estrogen receptor modules or SERMs [raloxifene])

DENOMINATOR DESCRIPTION

All patients aged 50 years and older with a fracture of the hip, spine or distal radius (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

NUMERATOR DESCRIPTION

Patients who had a central dual-energy x-ray absorptiometry (DXA) measurement ordered or performed or pharmacologic therapy prescribed (see the related "Numerator Inclusions/Exclusions" field in the Complete Summary)

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

NATIONAL GUIDELINE CLEARINGHOUSE LINK

- American Gastroenterological Association medical position statement: guidelines on osteoporosis in gastrointestinal diseases.
- Physician's guide to prevention and treatment of osteoporosis.
- American Association of Clinical Endocrinologists medical guidelines for clinical practice for the prevention and treatment of postmenopausal osteoporosis: 2001 edition, with selected updates for 2003.

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Use of this measure to improve performance
Variation in quality for the performance measured

EVIDENCE SUPPORTING NEED FOR THE MEASURE

Feldstein A, Elmer PJ, Orwoll E, Herson M, Hillier T. Bone mineral density measurement and treatment for osteoporosis in older individuals with fractures: a gap in evidence-based practice guideline implementation. Arch Intern Med2003 Oct 13;163(18):2165-72. [46 references] PubMed

Mudano AS, Casebeer L, Patino F, Allison JJ, Weissman NW, Kiefe CI, Person S, Gilbert D, Saag KG. Racial disparities in osteoporosis prevention in a managed care population. South Med J2003 May;96(5):445-51. PubMed

U.S. Department of Health and Human Services. Bone health and osteoporosis: a report of the Surgeon General. Rockville (MD): U.S. Department of Health and Human Services, Office of the Surgeon General; 2004.

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Internal quality improvement
National reporting

Application of Measure in its Current Use

CARE SETTING

Ambulatory Care
Physician Group Practices/Clinics

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Individual Clinicians

TARGET POPULATION AGE

Age greater than or equal to 50 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Unspecified

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Unspecified

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Living with Illness
Staying Healthy

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

All patients aged 50 years and older with a fracture of the hip, spine or distal radius

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions
All patients aged 50 years and older with a fracture of the hip, spine or distal radius

Exclusions

- Documentation of medical reason(s) for not ordering or performing a central dual-energy X-ray absorptiometry (DXA) or not prescribing pharmacologic therapy

- Documentation of patient reason(s) for not ordering or performing a central DXA or not prescribing pharmacologic therapy
- Documentation of system reason(s) for not ordering or performing a central DXA or not prescribing pharmacologic therapy

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Clinical Condition

DENOMINATOR TIME WINDOW

Time window is a single point in time

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions
Patients from the denominator who had a central dual-energy x-ray absorptiometry (DXA) measurement ordered or performed or pharmacologic therapy prescribed*

*__Note__: U.S. Food and Drug Administration approved pharmacologic options for osteoporosis prevention and/or treatment of postmenopausal osteoporosis include, in alphabetical order: bisphosphonates (alendronate, ibandronate, and risedronate), calcitonin, estrogens (estrogens and/or hormone therapy), parathyroid hormone [PTH (1-34), teriparatide], and selective estrogen receptor modules or SERMs (raloxifene).

The management (DXA ordered or performed or pharmacologic therapy prescribed) should occur within three months of notification of the fracture from the physician treating the fracture. Note prior DXA status or already on treatment pre-fracture would meet this measure.

Exclusions
None

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Fixed time period

DATA SOURCE

Administrative data
Medical record

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Measure #3: management following fracture.

MEASURE COLLECTION

The Physician Consortium for Performance Improvement® Measurement Sets

MEASURE SET NAME

Osteoporosis Physician Performance Measurement Set

SUBMITTER

American Medical Association on behalf of the AAFP, AAOS, AACE, American College of Rheumatology, The Endocrine Society, Physician Consortium for Performance Improvement®, and the National Committee for Quality Assurance

DEVELOPER

American Academy of Family Physicians
American Academy of Orthopaedic Surgeons
American Association of Clinical Endocrinologists
American College of Rheumatology
National Committee for Quality Assurance
Physician Consortium for Performance Improvement®
The Endocrine Society

FUNDING SOURCE(S)

Unspecified

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FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

Conflicts, if any, are disclosed in accordance with the Physician Consortium for Performance Improvement® conflict of interest policy.

ENDORSER

National Quality Forum

INCLUDED IN

Ambulatory Care Quality Alliance
Physician Quality Reporting Initiative

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2006 Oct

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

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MEASURE AVAILABILITY

The individual measure, "Measure #3: Management Following Fracture," is published in the "Osteoporosis Physician Performance Measurement Set." This document and technical specifications are available in Portable Document Format (PDF) from the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement® Web site: www.physicianconsortium.org.

For further information, please contact AMA staff by e-mail at cqi@ama-assn.org.

NQMC STATUS

This NQMC summary was completed by ECRI Institute on October 12, 2007. The information was verified by the measure developer on November 21, 2007.

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